

WHAT IS CLAIMED IS:

1. A method of making an OLED device that corrects for potential defect(s) identified in one processing station by adjusting a subsequent processing station, comprising:

a) processing an OLED substrate by adding at least one organic layer and measuring in-situ one or more parameters associated with such organic layer to produce a signal representative of potential defect(s) in a produced OLED device; and

b) adjusting in a subsequent processing station in response to the signal to change the formation of a subsequent organic layer added to the OLED device to compensate for the potential defect(s).

2. A method of making an OLED device that corrects for potential defect(s) identified in one processing station by adjusting a subsequent processing station, comprising:

a) using radiation to transfer organic material from a donor to an OLED substrate to form an organic layer and measuring in-situ one or more parameters associated with such organic layer to produce a signal representative of potential defect(s) in a produced OLED device; and

b) adjusting a subsequent processing station in response to the signal to change the formation of a subsequent organic layer added to the OLED substrate to compensate for the potential defect(s).

3. The method of claim 1 wherein element a) includes using ellipsometry to determine the thickness of the organic layer and produce a signal representative of such thickness and wherein element b) adjusts the thickness of the subsequent organic layer.

4. The method of claim 1 wherein spectroscopic ellipsometry, diffraction of a laser beam, photoluminescence, laser desorption mass spectroscopy, Kelvin probe testing, atomic force microscopy, micro-Raman spectroscopy, X-ray fluorescence, or four point probe measurements are used to determine the thickness of the organic layer and produce a signal representative of such thickness and wherein element b) adjusts the thickness of the subsequent organic layer.

5. In a method of making an OLED device that corrects for potential defect(s) identified in one processing station by adjusting a subsequent processing station or rejects the device, comprising:

a) using radiation to transfer organic material from a donor to an OLED substrate to form an organic layer and measuring in-situ one or more parameters associated with such organic layer to produce a signal representative of potential defect(s) in a produced OLED device; and

b) adjusting a subsequent processing station in response to the signal to change the formation of a subsequent organic layer added to the OLED substrate to compensate for the potential defect(s) or rejecting the device.

6. The method of claim 5 wherein the rejected device is reworked to correct for identified defect(s).

7. A method of making an OLED device that corrects for potential defect(s) identified in one processing station by adjusting a subsequent processing station or rejecting or reworking the device, comprising:

a) using radiation to transfer organic material from a donor to an OLED substrate to form an organic layer; and

b) testing in-situ the donor or the organic layer on the substrate or both to determine if sufficient organic material was or will be transferred and, if insufficient material was or will be transferred, rejecting or reworking the device to correct for the incomplete organic material transfer.

8. The method of claim 7 wherein the testing of the donor includes spectroscopic ellipsometry.
9. The method of claim 7 wherein the reworking the device includes radiation thermal transfer of an organic layer to the defective locations on the device using an additional donor.
10. The method of claim 7 wherein the testing of the substrate includes spectroscopic ellipsometry.
11. A method of making an OLED device that uses a donor to transfer organic material to a substrate, comprising:
 - a) testing in-situ the donor to determine if there is a defect and identifying the location of such defect in the donor; and
 - b) using radiation to transfer organic material from acceptable portions of the donor to an OLED substrate by excluding the identified defective portions of the donor to form an organic layer.
12. The method of claim 11 further including:
 - c) testing in-situ the donor or the organic layer on the substrate or both to determine if sufficient organic material was or will be transferred and, if insufficient material was or will be transferred, rejecting or reworking the device to correct for the incomplete organic material transfer.